



Economic Contributions of the Green Industry in the United States, 2007

By

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Executive Summary

The environmental horticulture industry, also known as the “Green Industry,” is comprised of a variety of businesses involved in the production, distribution and services associated with ornamental plants, landscape and garden supplies and equipment. Segments of the industry include wholesale nursery, greenhouse and sod growers, landscape architects, contractors and maintenance firms, marketing intermediaries such as brokers, horticultural distribution centers, and re-wholesalers, retail garden centers, home centers and mass merchandisers with lawn and garden departments, and a variety of other retail establishments selling plants and horticultural goods. In addition to these commercial sectors, many state and local governments have significant urban forestry operations for management of parks, botanic gardens, and right-of-ways that are an integral segment of community infrastructure.

The nursery and greenhouse sector has experienced considerable growth in the last two decades, albeit slowing somewhat in recent years. The landscape design, construction, and maintenance sector has also expanded due to strong economic conditions and robust building activity. Retail sales of horticultural goods have increased for both independent and chain-store type retailers, with considerable consolidation occurring due to the increased presence of home centers and mass merchants in the lawn and garden marketplace. The outlook for the Green Industry is promising, yet there are challenges resulting from increasing competitive pressures.

In view of its importance, numerous studies have been conducted to document the Green Industry’s economic impacts in individual states or regions. The present study updates previous research that evaluated economic impacts of the Green Industry in the United States for 2002 (Hall, Hodges and Haydu, 2005, 2006). National estimates of economic impacts were derived from a variety of information sources, including national and state-level industry statistics from the 2007 U.S. Economic Census (Census Bureau, 2010), other federal government reports, and primary surveys by horticultural economics researchers. Economic impacts for each state were computed using multipliers from the *RIMSII* Input-output analysis system (USDOC/BEA, 2007), to estimate the indirect effects of industry purchases and induced effects of employee household spending arising from new final demand.

Total economic contributions for the United States Green Industry in 2007, including regional economic multiplier effects, were estimated at \$175.26 Billion in output (revenue), employment of 1.95 Million fulltime and part-time jobs, labor earnings of \$53.16 Billion, and \$107.16 Billion in value added (Table ES-1). Total value added impacts represented 0.76 percent of U.S. Gross Domestic Product in 2007. For the *Production and Manufacturing* Group, including *Nursery and Greenhouse Production* and *Lawn and Garden Equipment Manufacturing* sectors, total output impacts were \$52.57 Billion, employment impacts were 469 thousand jobs, earnings impacts were \$13.14 Billion, and value added impacts were \$32.13 Billion. For the *Horticultural Services* Group, *Landscape Services* and *Landscape Architectural Services* sectors, total output impacts were \$92.83 Billion, employment impacts were 1.12 Million jobs, earnings impacts were \$30.15 Billion, and value added impacts were \$54.52 Billion. For the *Wholesale and Retail Trade* Group, total output impacts were \$29.86 Billion, employment impacts were 358 thousand jobs, earnings impacts were \$9.87 Billion, and value added impacts were \$20.51 Billion. The largest individual industry sectors in terms of employment and value added impacts were *Landscaping Services* (1,075,343 jobs, \$50.28 Billion), *Nursery and Greenhouse Production* (436,462 jobs, \$27.14 Billion), and *Building Materials and Garden Supplies Stores* (190,839 jobs, \$9.71 Billion). Other industry sectors with employment impacts exceeding 10,000 jobs were *Miscellaneous Store Retailers* (59,829 jobs), *Landscape Architectural Services* (48,085 jobs), *Lawn and Garden Equipment Manufacturing* (32,230 jobs), *General Merchandise Stores* (39,433 jobs), *Merchant Wholesalers of Durable Goods* (19,218 jobs), *Merchant Wholesalers of Nondurable Goods* (15,732 jobs), *Food and Beverage Stores* (14,074 jobs), and *Non-store Retailers* (12,170 jobs), as shown in Figure ES-1.

Employment and value added contributions by the Green Industry in 2007 are summarized by state and region and industry group in Table ES-2. The largest regions in terms of total employment contributions were the Pacific (358,577 jobs), Southeast (351,489 jobs) and Midwest (335,252 jobs), followed by the Appalachian region (208,391 jobs), Mountain (159,440 jobs), Southcentral (154,270 jobs) and Great Plains (30,038 jobs). The top-ten individual

states in terms of employment contributions were California (257,885 jobs), Florida (188,437 jobs), Texas (82,113 jobs), North Carolina (81,770 jobs), Ohio (79,707 jobs), Pennsylvania (75,604 jobs), New Jersey (67,993 jobs), Illinois (67,382 jobs), Georgia (66,042 jobs), and Virginia (58,677 jobs) as shown in Figure ES-2. Generally, output and value added contributions in regions and states followed the same ordering as employment. Total value added impacts as a share of Gross State Product ranged from over 1.60 percent to less than 0.04 percent.

Between 2002 and 2007, total horticultural sales increased by 3.5 percent and total output impacts increased by 29.2 percent, or an average annual rate of 5.8 percent over the five year period. The *Production and Manufacturing* industry group and *Horticultural Services* group had substantially increased output impacts of 36.8 percent and 44.6 percent, respectively, while the *Wholesale and Retail Trade* group declined by 9.7 percent during this period. Value Added impacts increased by 22.2 percent, however, labor income impacts declined by 11.2 percent. Direct employment also declined by 2.7 percent but total employment impacts increased by 20.4 percent.

Figure ES-1. Employment contributions of U.S. Green industry sectors, 2007

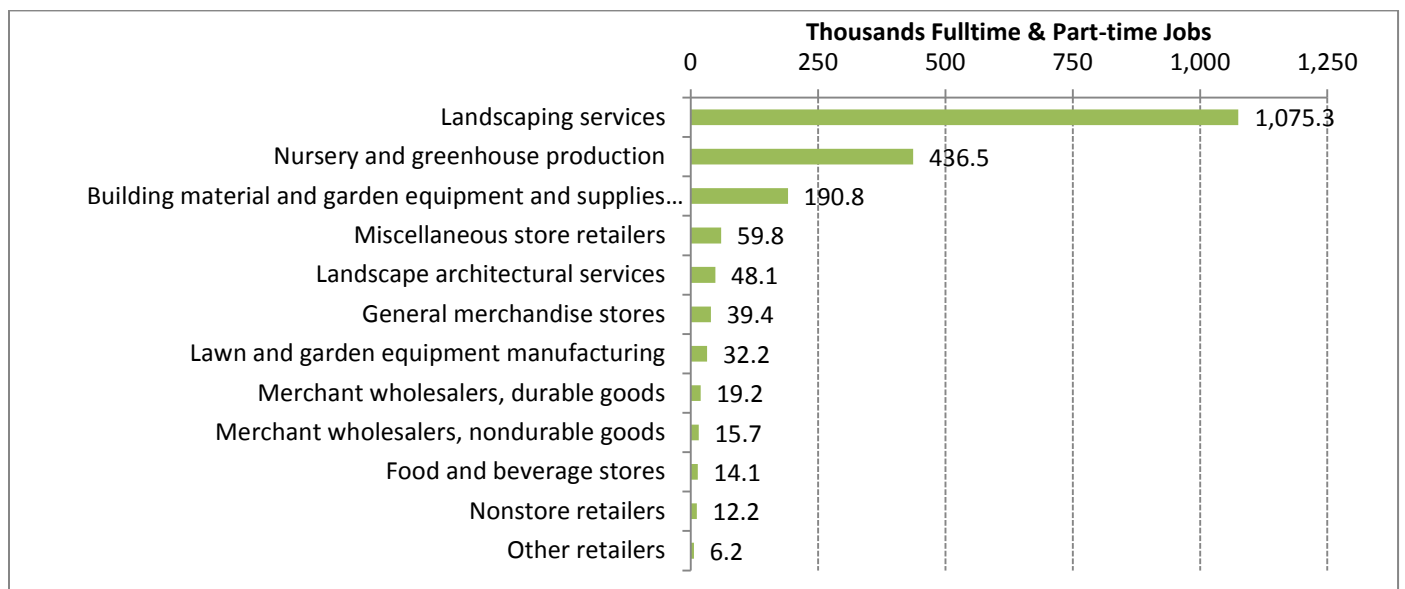


Figure ES-2. Employment contributions of the Green industry in U.S. states, 2007

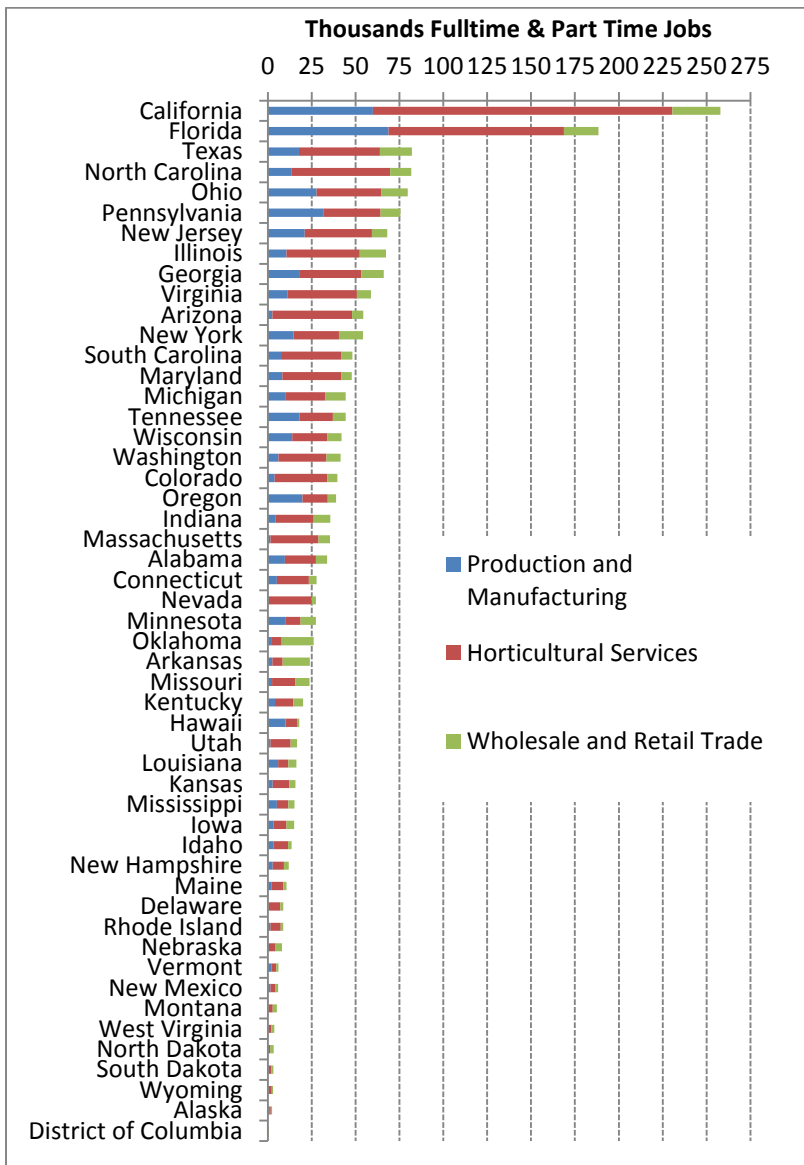


Table ES-1. Summary of economic contributions of U.S. Green industry sectors, 2007

Industry Group / Sector (NAICS)	Number Establish- ments	Sales Revenues	Direct Output	Total Output Impact	Payroll	Total Earnings Impact	Total Value Added Impact	Direct Employ- ment	Total Employ- ment Impact
-----Million Dollars-----							<i>Fulltime & Part-time Jobs</i>		
Production and Manufacturing	19,917	35,386	35,386	52,572	8,773	13,145	32,128	277,736	468,692
Nursery and greenhouse production (1114)	19,803	27,139	27,139	40,941	8,268	11,986	27,099	262,941	436,462
Lawn and garden equipment manufacturing (333112)	114	8,247	8,247	11,632	506	1,160	5,028	14,795	32,230
Horticultural Services	99,930	58,276	58,276	92,830	19,129	30,151	54,521	631,511	1,123,428
Landscaping services (56173)	93,687	53,910	53,910	86,661	17,389	27,809	50,283	596,896	1,075,343
Landscape architectural services (54132)	6,243	4,365	4,365	6,169	1,740	2,342	4,238	34,615	48,085
Wholesale and Retail Trade	1,279,848	82,452	23,740	29,856	7,974	9,866	20,511	292,962	357,515
Building material and garden equipment and supplies stores (444)	91,070	39,004	11,896	14,121	4,609	5,300	9,706	163,458	190,839
Miscellaneous store retailers (453)	121,911	7,045	3,071	4,047	874	1,181	2,750	47,175	59,829
Merchant wholesalers, durable goods (423)	254,975	8,681	2,087	2,985	670	945	2,064	12,355	19,218
General merchandise stores (452)	45,855	7,489	1,955	2,220	711	794	1,532	36,366	39,433
Merchant wholesalers, nondurable goods (424)	134,614	11,568	1,921	2,852	470	752	1,975	9,570	15,732
Non-store retailers (454)	59,375	3,368	1,455	1,878	279	409	1,278	7,408	12,170
Food and beverage stores (445)	146,084	2,451	706	823	252	288	567	12,785	14,074
Wholesale electronic markets, agents and brokers (425)	45,394	2,129	431	658	46	116	453	1,030	2,765
Furniture and home furnishings stores (442)	65,144	218	97	114	30	35	78	1,128	1,325
Gasoline stations (447)	118,756	292	57	81	10	17	54	612	920
Electronics and appliance stores (443)	50,803	90	26	30	9	11	21	420	467
Health and personal care stores (446)	88,452	77	23	28	10	11	19	350	403
Sporting goods, hobby, book, and music stores (451)	57,415	40	15	18	5	6	12	305	339
Total All Industry Groups	1,399,695	176,113	117,402	175,258	35,876	53,162	107,160	1,202,210	1,949,635

Values for wholesale and retail trade sectors reflect share of sales, employment and payroll for horticulture product lines, and gross margin on sales for output. Total impact estimates include regional economic multiplier effects.

Sources: Census Bureau: 2007 Economic Census: revenues and employment for manufacturing, trade and service sectors, and product line sales; National Nursery Survey: nursery and greenhouse revenues, employment and out-of-state shipments (2008); Census Bureau: Wholesale and Retail Trade benchmark reports (2005): gross margin on sales; IMPLAN: state data on out-of-state shipments or exports (2001); BEA: RIMSII regional economic multipliers (2007).

Table ES-2. Employment and value added contributions of Green industry groups in U.S. regions and states, 2007

Region / State	Employment (Fulltime & Part-time Jobs)				Value Added (Million Dollars)			
	Production and Manufacturing	Horticultural Services	Wholesale and Retail Trade	Total All Industry Groups	Production and Manufacturing	Horticultural Services	Wholesale and Retail Trade	Total All Industry Groups
Appalachian	47,043	126,900	34,448	208,391	3,262.6	5,279.7	1,917.8	10,460.0
Kentucky	3,960	10,524	5,597	20,081	350.1	439.8	280.4	1,070.2
North Carolina	13,366	56,339	12,066	81,770	569.8	2,265.0	746.0	3,580.8
Tennessee	18,051	19,067	7,157	44,274	1,484.0	849.6	400.6	2,734.2
Virginia	11,293	39,344	8,039	58,677	850.3	1,663.7	416.0	2,930.0
West Virginia	373	1,627	1,589	3,589	8.5	61.6	74.7	144.9
Great Plains	4,234	15,372	10,432	30,038	243.4	696.9	554.4	1,494.8
Kansas	2,672	9,517	3,495	15,685	75.3	436.8	173.1	685.2
Nebraska	658	3,698	3,630	7,985	135.1	166.7	191.5	493.2
North Dakota	260	1,004	2,010	3,274	2.4	44.0	112.9	159.4
South Dakota	644	1,153	1,297	3,094	30.6	49.5	76.9	156.9
Midwest	82,204	172,548	80,500	335,252	5,471.3	9,048.9	4,478.3	18,998.6
Illinois	10,536	41,905	14,941	67,382	1,461.2	2,538.3	1,001.9	5,001.3
Indiana	4,129	22,034	9,497	35,660	228.1	1,022.7	481.6	1,732.4
Iowa	3,231	7,307	4,488	15,027	278.9	315.7	233.9	828.5
Michigan	9,950	22,880	11,543	44,373	721.1	1,288.7	572.0	2,581.8
Minnesota	10,163	8,536	8,613	27,311	294.4	551.6	480.5	1,326.5
Missouri	2,432	13,168	8,213	23,813	232.4	608.1	429.5	1,270.1
Ohio	27,789	36,918	14,999	79,707	1,462.6	1,771.9	873.5	4,108.0
Wisconsin	13,974	19,800	8,206	41,979	792.6	951.9	405.5	2,150.0
Mountain	12,116	124,043	23,281	159,440	672.5	5,459.1	1,277.6	7,409.2
Arizona	2,605	45,448	6,265	54,318	308.2	1,845.5	337.0	2,490.7
Colorado	3,855	29,887	5,930	39,672	167.4	1,560.8	335.2	2,063.4
Idaho	3,045	8,402	2,079	13,526	87.5	343.9	101.9	533.3
Montana	235	2,448	2,412	5,096	55.9	111.0	117.8	284.6
Nevada	388	24,690	2,242	27,320	18.6	1,003.0	136.8	1,158.4
Utah	1,521	11,475	3,554	16,550	27.1	517.8	202.4	747.4
Wyoming	468	1,692	799	2,958	7.8	77.2	46.3	131.3
Northeast	90,973	204,664	59,831	355,469	5,407.2	11,944.3	3,610.3	20,961.7
Connecticut	5,128	18,266	4,413	27,807	312.4	1,033.3	277.0	1,622.7
Delaware	301	6,811	1,664	8,776	11.0	319.1	110.5	440.6
District of Columbia		180	419		599	16.4	19.8	36.2
Maine	2,193	6,667	1,795	10,655	67.5	291.3	93.7	452.5
Maryland	8,230	33,746	5,791	47,768	367.9	1,627.2	335.8	2,330.9
Massachusetts	1,551	27,344	6,545	35,440	78.8	1,802.4	370.0	2,251.1
New Hampshire	2,793	6,289	2,844	11,926	422.6	325.8	179.4	927.8
New Jersey	21,044	38,253	8,696	67,993	1,263.6	2,304.0	552.2	4,119.8
New York	14,631	25,966	13,533	54,131	954.5	1,923.7	927.2	3,805.5
Pennsylvania	31,560	32,637	11,407	75,604	1,736.1	1,864.1	584.6	4,184.8
Rhode Island	1,452	5,872	1,390	8,713	52.9	319.8	82.4	455.0
Vermont	2,089	2,632	1,335	6,057	139.8	117.2	77.8	334.9
Pacific	96,332	219,823	42,422	358,577	8,048.1	10,546.2	2,570.3	21,164.6
Alaska	781	873	825	2,479	116.7	55.9	47.0	219.7
California	59,817	170,643	27,425	257,885	5,866.1	8,310.3	1,659.0	15,835.5
Hawaii	10,052	6,582	1,340	17,974	623.8	283.5	72.5	979.8
Oregon	19,730	14,342	4,723	38,794	936.5	606.7	289.3	1,832.5
Washington	5,951	27,383	8,109	41,443	505.0	1,289.8	502.4	2,297.2
Southcentral	29,625	66,455	58,190	154,270	2,783.2	3,070.9	3,143.7	8,997.8
Arkansas	2,658	5,763	15,577	23,999	260.8	193.4	801.4	1,255.6
Louisiana	5,866	5,740	4,674	16,280	760.3	247.8	255.9	1,264.1
New Mexico	1,492	2,908	1,394	5,794	297.7	133.6	69.6	500.9
Oklahoma	1,898	5,958	18,227	26,084	73.5	237.8	958.4	1,269.6
Texas	17,710	46,087	18,316	82,113	1,390.8	2,258.4	1,058.4	4,707.5
Southeast	109,455	193,623	48,411	351,489	6,525.8	8,474.9	2,958.3	17,959.0
Alabama	9,752	17,666	6,257	33,675	609.3	669.4	324.3	1,602.9
Florida	68,783	99,862	19,792	188,437	3,861.1	4,562.2	1,313.4	9,736.7
Georgia	18,305	35,004	12,732	66,042	1,316.9	1,703.1	791.4	3,811.4
Mississippi	5,058	6,613	3,525	15,197	273.0	232.0	184.3	689.2
South Carolina	7,557	34,478	6,104	48,139	465.6	1,308.3	345.0	2,118.8
Total All Regions	471,981	1,123,428	357,515	1,952,925	32,414.0	54,521.0	20,510.7	107,445.8

Values for wholesale and retail trade sectors reflect share of sales, employment and payroll for horticulture product lines. Estimates include regional economic multiplier effects.